UNITED STATES PATENT AND TRADEMARK OFFICE

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EXAMINER
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ART UNIT	PAPER NUMBER
2431	

NOTIFICATION DATE	DELIVERY MODE
12/05/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ip.department.us@nxp.com

	Application No.	Applicant(s)
	10/541,884	KNUDSEN, CARL J.
Office Action Summary	Examiner	Art Unit	
	BRETT SQUIRES	2431	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 November 2006*.
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-25* is/are pending in the application.
       4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) *1-6,10-12,14-18,24 and 25* is/are rejected.
7)☒ Claim(s) *7-9,13 and 19-23* is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.
10)☒ The drawing(s) filed on *07 July 2005* is/are: a)☐ accepted or b)☒ objected to by the Examiner.
       Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
       Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
       a)☒ All   b)☐ Some * c)☐ None of:
       1.☒ Certified copies of the priority documents have been received.
       2.☐ Certified copies of the priority documents have been received in Application No. _____.
       3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
       * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
       Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
       Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Specification

1.   The disclosure is objected to because of the following informalities: the various

sections of the specification are not labeled with the appropriate section heading.

Please see MPEP 608.01(a).   Appropriate correction is required.

Drawings

2.   The drawings are objected to because text labels are necessary for the

applicant's drawings to be understood. The drawings in a nonprovisional application

must show every feature of the invention specified in the claims. See 37 CFR 1.83(a).

Figure 2 contains rectangular boxes whose meanings are unclear instead of

conventional drawing symbols whose meanings are readily apparent, such as the circuit

elements that represent resistors, capacitors, or inductors. Accordingly, the rectangular

boxes should have text labels for clarification purposes.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in

reply to the Office action to avoid abandonment of the application. Any amended

replacement drawing sheet should include all of the figures appearing on the immediate

prior version of the sheet, even if only one figure is being amended. The figure or figure

number of an amended drawing should not be labeled as "amended." If a drawing figure

is to be canceled, the appropriate figure must be removed from the replacement sheet,

and where necessary, the remaining figures must be renumbered and appropriate

changes made to the brief description of the several views of the drawings for

consistency. Additional replacement sheets may be necessary to show the renumbering

of the remaining figures. Each drawing sheet submitted after the filing date of an

application must be labeled in the top margin as either "Replacement Sheet" or "New

Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner,

the applicant will be notified and informed of any required corrective action in the next

Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

3.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

4.   Claims 11, 14-15, and 22-23 are rejected under 35 U.S.C. 112, second

paragraph, as being indefinite for failing to particularly point out and distinctly claim the

subject matter which applicant regards as the invention.

5.   Claim 11 recites the limitation "the sense circuit" in page 4 line 22 of the

preliminary amendment filed July 7, 2005. There is insufficient antecedent basis for this

limitation in the claim.

6.   Claim 14 recited the limitation "the output register" in page 5 line 1 of the

preliminary amendment filed July 7, 2005. These is insufficient antecedent basis for this

limitation in the claim and to correct the antecedent for purposes of this Office action

claim 14 will be treated as if it depended from claim 13.

7.   Claim 15 recites the limitation "the enable register is adapted to mask the data

read from the plurality of magnetically-responsive nodes with the data stored in the

enable register" in page 5 lines 4-5 of the preliminary amendment filed July 7, 2005.

Claim 15 and the claims it depends from recite selected bits of the plurality of

magnetically-responsive nodes are stored in the enable register but do not recite a

second data set being stored in the enable register. Accordingly, there is insufficient

antecedent basis for "the data stored in the enable register," when the limitation is used

to refer to a data set other than the data read from the plurality of magnetically-

responsive nodes, such as in claim 15.

8.　　　The term "a selected degree of randomness," in claims 22-23 is a relative term

which renders the claim indefinite. The term "a selected degree of randomness," is not

defined by the claim, the specification does not provide a standard for ascertaining the

requisite degree, and one of ordinary skill in the art would not be reasonably apprised of

the scope of the invention. The term "a selected degree of randomness," does not

define the probability that one of the magnetically responsive nodes will be selected.

For example, if the magnetically responsive nodes were selected randomly then each

magnetically responsive node would have an equal probability of being selected.

Double Patenting

9.　　　The nonstatutory double patenting rejection is based on a judicially created
doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the
unjustified or improper timewise extension of the "right to exclude" granted by a patent
and to prevent possible harassment by multiple assignees. A nonstatutory
obviousness-type double patenting rejection is appropriate where the conflicting claims
are not identical, but at least one examined application claim is not patentably distinct
from the reference claim(s) because the examined application claim is either anticipated
by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140
F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29
USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir.
1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422

F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163
USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d)
may be used to overcome an actual or provisional rejection based on a nonstatutory
double patenting ground provided the conflicting application or patent either is shown to
be commonly owned with this application, or claims an invention made as a result of
activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a
terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with
37 CFR 3.73(b).

10.   Claims 1-3 and 16 are provisionally rejected on the ground of nonstatutory

obviousness-type double patenting as being unpatentable over claims 1-3 of copending

Application No. 10/538,457. Although the conflicting claims are not identical, they are

not patentably distinct from each other because claims 1-3 and 16 of the present

application are anticipated by claims 1-3 of copending Application No. 10/538,457.

This is a <u>provisional</u> obviousness-type double patenting rejection because the

conflicting claims have not in fact been patented. The claims listed below are claims 1-

3 and 16 of the present application and the elements recited in parentheses are the

corresponding elements of claims 1-3 of the copending Application No. 10/538,457.

Regarding Claim 1:

An integrated circuit chip arrangement comprising: an integrated circuit chip

("Integrated Circuit Device" See Claim 1) having circuitry therein including a plurality of

magnetically-responsive nodes adapted to store bits ("A Plurality of Magnetically-

Responsive Circuit Nodes" See Claim 1); a package having magnetic material and

covering at least a portion of circuitry in the integrated circuit chip ("A Package adapted

to inhibit access to the integrated circuit device and including a plurality of magnetized

particles therein" See Claim 1); a sense circuit adapted to store selected bits of the plurality of magnetically-responsive nodes ("A detection circuit adapted to detect the magnetic state of the magnetically-responsive circuit nodes" See Claim 2), the bits defining a value as a function of the magnetic material in the package ("The magnetically-responsive circuit nodes magnetically responding to the plurality of magnetized particles" See claim 1); and the package and the plurality of magnetically-responsive nodes being arranged such that altering the package results in a state change of at least one of the plurality of magnetically-responsive nodes ("A change in magnetic field collectively provided by the magnetized particles renders a change in magnetic state of at least one of the magnetically responsive circuit nodes" See claim 1), the state change being detectable by the sense circuit ("A detection circuit adapted to detect the magnetic state of the magnetically responsive circuit nodes" See Claim 1).

Regarding Claim 2:

An enable register adapted to store selected bits of the plurality of magnetically-responsive nodes ("A comparison circuit" See Claim 3), the value of the bits being responsive to the magnetic material in the package ("The magnetically-responsive circuit nodes magnetically responding to the plurality of magnetized particles" See claim 1).

Regarding Claim 3:

A cryptographic key is formed from the bits having data stored in the enable register (This claim does not recite any additional structure for the integrated circuit chip arrangement or further define any recited structure and instead this claim introduces a

naming convention for the data stored in the enable register. Accordingly, it is inherent

that the data stored in the comparison circuit can be called a cryptographic key.).

Regarding Claim 16:

An integrated circuit chip arrangement comprising: an integrated circuit chip ("Integrated

Circuit Device" See Claim 1) having circuitry therein including a plurality of magnetically-

responsive nodes adapted to store bits ("A Plurality of Magnetically-Responsive Circuit

Nodes" See Claim 1); a package having magnetic material and covering at least a

portion of circuitry in the integrated circuit chip ("A Package adapted to inhibit access to

the integrated circuit device and including a plurality of magnetized particles therein"

See Claim 1); a sense circuit adapted to store selected bits of the plurality of

magnetically-responsive nodes ("A detection circuit adapted to detect the magnetic

state of the magnetically-responsive circuit nodes" See Claim 2), the bits defining a

value as a function of the magnetic material in the package ("The magnetically-

responsive circuit nodes magnetically responding to the plurality of magnetized

particles" See claim 1); the package and the plurality of magnetically-responsive nodes

being arranged such that altering the package results in a state change of at least one

of the plurality of magnetically-responsive nodes("A change in magnetic field collectively

provided by the magnetized particles renders a change in magnetic state of at least one

of the magnetically responsive circuit nodes" See claim 1), the state change being

detectable by the sense circuit ("A detection circuit adapted to detect the magnetic state

of the magnetically responsive circuit nodes" See Claim 1); and a power-up responsive

circuit adapted to read data from the plurality of magnetically-responsive nodes ("A

comparison circuit adapted to compare the detected magnetic state with a reference

state" See Claim 3).

Claim Rejections - 35 USC § 103

11.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

12.   Claims 1-3, 5, 16-18, and 24-25 are rejected under 35 U.S.C. 103(a) as being

obvious over Benson et al. (US 7,054,162) in view of Surya et al. (US 6,477,335).

Regarding Claims 1 and 18:

Benson discloses a security module system having an integrated circuit chip with

circuitry therein ("Substrate" See fig. 4 ref. no. 104), a package covering at least a

portion of circuitry in the integrated circuit chip ("Cover" See fig. 2 ref. no. 106), and a

sense circuit adapted to store selected bits ("Protected Electronic Components" See fig.

4 ref. no. 174 and col. 8 lines 174).

Benson does not disclose the integrated circuit chip includes a plurality of

magnetically-responsive node adapted to store bits, the package includes magnetic

material, the bits defining a value as a function of the magnetic material in the package,

and the package and the plurality of magnetically-responsive nodes being arranged

such that altering the package results in a state change of at least one of the plurality of

magnetically-responsive nodes, the state change being detectable by the sense circuit.

Surya discloses an identification system having a plurality of magnetically-
responsive nodes adapted to store bits ("Reed Switch" See figs. 1-3 ref. no. 10),
magnetic material ("Magnetic Element" See fig. 3 ref. no. 20), the bits defining a value
as function of the magnetic material (See col. 3 lines 51-62), and the package and the
plurality of magnetically-responsive nodes being arranged such that altering the
package results in a state change of at least one of the plurality of magnetically-
responsive nodes, the state change being detectable by the sense circuit (See col. 3
lines 63-67 and col. 4 lines 1-17).

It would have been obvious to one of ordinary skill in the art at the time of the
invention to replace the resistive sensor incorporated in the substrate and the cover for
detecting tampering with cover of the security module system disclosed by Benson with
identification system disclosed by Surya in order protect against unauthorized access to
the electronic components through encoding a unique identification number into cover
and permitting the electronic components to function only when the proper cover is in
place. The unique identification number encoded into the cover prevents a hacker from
replacing a cover that protects the electronic components against X-rays and other
electro-magnetic inspection tools with a generic cover that omits this protection and
allows hacker to observe the electronic components in operation (See Benson col. 5
lines 22-37).

Regarding Claim 2:

Benson discloses an enable register adapted to store selected bits of the plurality
of magnetically-responsive nodes, the value of the bits being responsive to the

magnetic material in the package ("Protected Electronic Components" See col. 8 lines 23-41).

Regarding Claim 3:

Benson discloses a cryptographic key is formed from the bits having data stored in the enable register (This claim does not recite any additional structure for the integrated circuit chip arrangement or further define any recited structure and instead this claim introduces a naming convention for the data stored in the enable register. Accordingly, it is inherent that the data stored in the comparison circuit can be called a cryptographic key.).

Regarding Claim 5:

Benson discloses a power-up state machine coupled to the enable register and coupled to the sense circuit ("Processor" See col. 1 lines 32-41)

Regarding Claims 24-25:

Surya discloses selecting the size of the magnets as a function of the distance between the magnets on the complementary circuitry component and the reed switches (See col. 4 lines 2-17)

Regarding Claim 16:

Benson discloses a security module system having an integrated circuit chip with circuitry therein ("Substrate" See fig. 4 ref. no. 104), a package covering at least a portion of circuitry in the integrated circuit chip ("Cover" See fig. 2 ref. no. 106), and a sense circuit adapted to store selected bits ("Protected Electronic Components" See fig. 4 ref. no. 174 and col. 8 lines 174).

Benson does not disclose the integrated circuit chip includes a plurality of magnetically-responsive node adapted to store bits, the package includes magnetic material, the bits defining a value as a function of the magnetic material in the package, the package and the plurality of magnetically-responsive nodes being arranged such that altering the package results in a state change of at least one of the plurality of magnetically-responsive nodes, the state change being detectable by the sense circuit, and a power-up responsive circuit adapted to read data from the plurality of magnetically-responsive nodes.

Surya discloses an identification system having a plurality of magnetically-responsive nodes adapted to store bits ("Reed Switch" See figs. 1-3 ref. no. 10), magnetic material ("Magnetic Element" See fig. 3 ref. no. 20), the bits defining a value as function of the magnetic material (See col. 3 lines 51-62), the package and the plurality of magnetically-responsive nodes being arranged such that altering the package results in a state change of at least one of the plurality of magnetically-responsive nodes, the state change being detectable by the sense circuit (See col. 3 lines 63-67 and col. 4 lines 1-17), and a power-up responsive circuit adapted to read data from the plurality of magnetically-responsive nodes ("Circuitry for evaluating the printer cartridge identification code by reading the position of each magnetic field detecting switch (See col. 9 lines 13-16).

It would have been obvious to one of ordinary skill in the art at the time of the invention to replace the resistive sensor incorporated in the substrate and the cover for detecting tampering with cover of the security module system disclosed by Benson with

identification system disclosed by Surya in order protect against unauthorized access to

the electronic components through encoding a unique identification number into cover

and permitting the electronic components to function only when the proper cover is in

place. The unique identification number encoded into the cover prevents a hacker from

replacing a cover that protects the electronic components against X-rays and other

electro-magnetic inspection tools with a generic cover that omits this protection and

allows hacker to observe the electronic components in operation (See Benson col. 5

lines 22-37).

Regarding Claim 17:

Benson discloses an enable register ("Protected Electronic Components" See

col. 8 lines 23-41). The examiner respectfully points out that it is inherent that circuitry

for evaluating the identification code by reading the position of each magnetic field

detecting switch accesses the enable register to compare the read identification code

with the expected identification code.

13.   Claims 4, 6, and 10-12 are rejected under 35 U.S.C. 103(a) as being obvious

over Benson et al. (US 7,054,162) in view of Surya et al. (US 6,477,335) further in view

of Chateau et al. (US 7,299,358)

Regarding Claims 4, 6, 10, and 12:

The above stated combination of Benson and Surya discloses a security module

system having a unique identification number encoded into the cover for protecting the

internal electronic components perform data encryption/decryption and store software

key from attacks by hackers (See Benson col. 1 lines 20-31).

The above stated combination of Benson Surya does not disclose using the

unique identification number encoded into the cover for data encryption/decryption.

Chateau discloses data encryption/decryption with a secret identification number

associated with a computing device (See col. 2 lines 3-15).

It would have been obvious to one of ordinary skill in the art at the time of the

invention to modify the above stated combination of Benson and Surya to include using

the unique identification number for data encryption/decryption such as that disclosed

by Chateau in order to prevent sophisticated attackers from accessing the encryption

data (See Chateau col. 1 lines 60-65).

Regarding Claim 11:

Benson discloses a sense circuit adapted for encrypting data as a function of the

selected bits of the plurality of magnetically-responsive nodes ("Protected Electronic

Components" See col. 8 lines 23-41).

Allowable Subject Matter

14.   Claims 7-9, 13, 19-23 are objected to as being dependent upon a rejected base

claim, but would be allowable if rewritten in independent form including all of the

limitations of the base claim and any intervening claims.

Conclusion

15.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRETT SQUIRES whose telephone number is (571) 272-8021. The examiner can normally be reached on 9:30am - 6:00pm Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on (571) 272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/BS/

/Christopher A. Revak/
Primary Examiner, Art Unit 2431